ABBREVIATED REDEVOLOPMENT ASSEMENT REPORT

for:

MARATHON ELECTRIC Earlville, Illinois ILB 000000134 LPC 00990155001

PREPARED BY:
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF LAND
DIVISION OF REMEDIATION MANAGEMENT
OFFICE OF SITE EVALUATION

June, 2014

TABLE OF CONTENTS

SEC 1	ION	<u>PAGE</u>
Section	a 1 A Introduction	1
beetioi	1.0 Mill Oddelloit	1
	Section 1.1 Introduction	1
	Section 1.2 Site Location and Description	2
	Section 1.3 Site History	5
Section	a 2.0 Field Investigation Activities and Analytical I	Results5
	Section 2.1 Objectives of Investigation	5
		6
		7
Section	3.0 Redevelopment Potential	8
	Section 3.1 Tiered Approached to Corrective Action	Objectives8
		8
		13
Section	1 4.0 Summary and Conclusions	14
	FIC	URES and TABLES
		Site Location Map
		Site Area MapSample Boring Location Map
Table 1	.1	Soil/Sediment Sample Descriptions
Table 1	.2	Groundwater Sample Descriptions
Table 2	2.1	Organic Soil/Sediment Results
		Organic Soil/Sediment Results
Table 3	3.1	Organic Groundwater Results
		Organic Groundwater Results
		Inorganic/Pesticide/PCB Groundwater Results
Table 4	I .1	Key Organic Soil/Sediment Results
Table 4	1.2	
Toble (: 1	Key Organic Groundwater Results
1 4010 .		
		APPENDICES
Appen	dix A	City Of Earlville Resolution Number 02-13-313
Appen	dix B Illinois Department of C	ommerce and Community Affairs (DCCA) marketing report

ABBREVIATED REDEVELOPMENT ASSESSMENT

Fo

Marathon Electric Manufacturing Corporation June, 2014

Section 1.0 Background

Section 1.1 Introduction

On February 13, 2013, the Illinois Environmental Protection Agency's (Illinois EPA) Office of Site Evaluation, working in cooperation with United States Environmental Protection Agency (U.S. EPA) Region V, initiated work on a Abbreviated Redevelopment Assessment at the property located at 1050 West Union Street in Earlville, Illinois. The City of Earlville passed Resolution No. 02-13-2013 on February 13, 2013 that requested Illinois EPA's assistance in conducting environmental investigations of Marathon Electric Manufacturing Corporation. (See Appendix A)

The Redevelopment Assessment was designed to identify potential areas of concern and determine if they pose an undue risk to human health and the environment. This report is not intended to completely define the lateral or vertical extent of contamination of the entire Marathon Electric Site. The Redevelopment Assessment is intended to provide the City of Earlville environmental data necessary to make decisions about future redevelopment of Marathon Electric Site. The report should not be viewed as conclusive evidence that additional contamination does not exist at this site.

The field activity portion of this investigation took place in during the week of September, 23, 2013. Prior to the field investigation agency person met with city officials do discuss their goals/expectations for the property and to gather any information they might have had regarding the property. At that time the Brownfield Program objectives were outlined for the City Officials and it was determined that an Abbreviated Redevelopment Assessment would be completed for the Marathon Electric site.

The Abbreviated Redevelopment Assessment is not designed to fulfill the All Appropriate Inquiry provisions of the Prospective Purchaser obligations of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The report is not intended to completely define the lateral or vertical extent of contamination of the entire Marathon Electric Site.

Section 1.2 Site Location and Description

The Marathon Electric site is located at 1050 West Union Street (N45th Road) in a rural area south west of Earlville, LaSalle County, Illinois. The site is on the Northeast corner of the intersection of E12th Road and N45th Road, with the coordinates for the site are: latitude 41.598N and longitude -88.937W. A warehouse is located to the north of the site and it is otherwise surrounded by agricultural land. A large lagoon is located on the northwest corner and water tower in the center of the north side of the site. (See Figure 1)

The site is relatively flat and prior to the construction of Marathon Electric in the 1940's this area is believed to have been primarily used for agricultural purposes. The site encompasses approximately 42 acres of which five acres have been developed into the current manufacturing area. This five acre area is fenced and access to it is limited. Overall the site and surrounding areas are relatively flat with drainage routes normally located around the perimeter of the agricultural fields. There are no notable wetlands or sensitive environments associated with these drainage routes. A majority of the drainage for the site is collected in a lagoon that at one time was possibly used an emergency source of water for a fire suppression system. (See Figure 2)

One building dominates this five acre area. It has a total of 116,557 square feet of which 110,400 square feet is manufacturing space and the remaining 6,157 square feet is office space. (According to a 1988, Illinois Department of Commerce and Community Affairs marketing report [See Appendix B]. Currently, the manufacturing section of the building has had the middle section removed and the northern section somewhat finished in to a warehouse/storage building. Other sections are missing major sections of their roofs and appear to have been subject to some limited demolition.

There are numerous piles of debris that contained: wood, concrete, building supplies, soil and random household items located on the far eastern end of what once was part of the manufacturing building. There is also an inactive rail spur

located on the eastern edge of the site. The water tower area on the north side of the site has been released to city along with access to it. The water tower is currently part of the Earlville public water supply system. Marathon electric had a 225 foot deep well and the city has an additional 887 foot deep sandstone well near the water tower. In the rural setting around the site private wells are the primary source of drinking water. The closest private well is located within one half mile to the north of the site. This sandstone well is approximately 120 feet in depth.

According to an interview with a former employee, operations at the plant included: die casting, dip panting, and machining. The employee recalled that the plant had two underground paint storage tanks and one holding tank for the varnishing oven. The varnishing oven and tank were in the general area of soil boring GP06 and the underground paint storage tanks correspond to soil boring GP10.

Other possible environmental issues mentioned by the employee included:

- The lagoon located on the northeast corner of the site was also used as cooling water for the die casting.
- Six foot by six foot Waste pits (approximately six foot by six foot) were
 used just outside a door on the north side, near the east end of the main
 building,
- Oils, coolants, paints, and paint thinners were used in the manufacturing process.

Section 1.3 Site History

The Marathon Electric Company was founded in 1913 by the Wausau Group in Wausau, Wisconsin and manufactured fractional horse power (HP) electric motors. Their first product was a ¼ HP washing machine electric motor.

Operations began in Earlville in 1947, with the manufacturing of these same fractional HP electric motors (1/8 – 1/2 HP). Operations ceased at this location in June of 1981. In April of 1982, the company requested that U.S.EPA eliminate their federal identification number. As a result of this action all of the associated file information for the site was also eliminated. The Illinois EPA also eliminated all but a few pieces of their files. Due to the rural location of this site, *Sanborn Fire Insurance Maps* are not available for this further limiting the historic information for Marathon Electric. The company is still in operation today in the United States and India.

Section 2.0 Field Investigation Activities and Analytical Results

Section 2.1 Objectives of Investigation

In August of 2013, Illinois Environmental Protection Agency's Office of Site Evaluation met with the Mayor of Earlville and the President of the National Bank of Earlville (current owner of the site). During the meeting the mayor expressed the city's desire to acquire the Marathon Electric property. During this meeting

the environmental investigative process was outlined for them and questions answered regarding it.

As a result of this meeting it was determined that the Illinois Environmental Protection Agency's Office of Site Evaluation would performed an Abbreviated Redevelopment Assessment which could help provide additional information useful in further defining the nature and extent of subsurface contamination on the property. This information is necessary to advance the property through the State's Voluntary Site Remediation Program.

Section 2.2 Sampling Activities

During the week of September 23, 2013 staff from the Illinois Environmental Protection Agency's Office of Site Evaluation conducted the field investigation portion of the Abbreviated Redevelopment Assessment. Over the course of that week a total of 20 soil borings were conducted using direct push technology by Illinois EPA's Geoprobe. These soil removed from the borings were then screened with a photo ionization detector (PID) and/ or an X-Ray Fluorescence instrument. A map depicting the location of these boring locations can be found as Figure 3. Section 2.3 of this report is a summary of these findings.

Of the twenty soil boring, six test soil borings were made in an area that a former employee had indicated was used as a liquid waste disposal area. These boring locations are also depicted on Figure 3. However, based on unremarkable PID readings no samples were collected from these borings.

In addition to utilizing the PID and/or X-Ray Fluorescence instrument, the team also collected a total of 20 surface and subsurface soil samples and three groundwater samples from 14 soil boring locations within the property.

All of these samples were collected in areas of suspected contamination and were analyzed by Illinois Environmental Protection Agency's laboratories for the presence of volatile organic compounds (VOAs) semi-volatile organic compounds (SVOCs), total metals, pesticides, and polychlorinated biphenyls (PCBs One sediment sample was also collected during this event and was subject to the same analysis as the soil samples.

Section 2.3 Summary of Analytical Results

Sample summary tables and maps denoting sampling locations for all analytical data generated over the course of this investigation are provided as attachments to this report.

All analytical data summarized in these tables have been compared to the Illinois Environmental Protection Agency's TACO Tier 1 Cleanup Standards. Tier 1 standards represent the most conservative cleanup standards that a site enrolled in the State's Site Remediation Program would be expected to meet.

Tables 2.1 through 2.3 are soil sample summary tables and Tables 3.1 through 3.3 are groundwater sample summary tables. These summary tables provide

results of all the analytes and compounds for which the laboratory analyzed these samples for.

Tables 4.1, 4.2, 5.1 and 5.2 are a summary of just the key analytes or compounds that were identified at a detectable levels. These levels were then compared to Tiered Approach to Corrective Action (TACO) levels.

Tables 1.1 and 1.2 (sample description tables) contain the corresponding sample numbers for each individual soil boring location.

Soil sample X104A, exceeded the Tier 1, residential TACO level for Manganese.

Soil sample X107, exceeded the Tier 1, residential TACO level for

Benzo(a)anthracene, Benzo(a)pyrene and Benzo(b)fluoranthene. This sample

also exceeded the Tier 1, commercial TACO level for Benzo(a)pyrene.

All three groundwater samples collected during this investigation exceeded the TACO Class 1, aquifer level for iron and lead. G101 and G108, also exceed the TACO Class 1, aquifer level for Manganese. G107 exceeded the TACO Class 1, aquifer level for Naphthalene and G108 exceeded the TACO Class 1, aquifer level for Vinyl Chloride.

Section 3.0

3.1 Tiered Approach to Corrective Action Objectives

Illinois EPA's Tiered Approach to Corrective Action Objectives regulations document (effective July 1, 1997, under 35 IL Adm. Code Part 742), can be used to develop site-specific remediation objectives. The TACO regulations discuss key elements required to develop risk-based remediation objectives, how background values may be used, and provides guidance through three tiers of a risk-based approach. The Illinois EPA will use the regulations, and the ground water standards established in 35 IL Adm. Code 620, to determine soil and ground water remediation objectives at Redevelopment Assessment sites.

The goal of the risk-based approach is to protect human health and the environment, while using specific data to allow for more cost-effective remedial specific exposure routes that pose a threat to either human health and/or the environment. The following paragraphs discuss three tiers and two alternative methods of evaluation in the Illinois EPA TACO guidance document.

Tier 1 consists of "look-up" tables, which consider limited site-specific information and are based on simple, numeric models. Depending on future land use, two Tier 1 comparisons were made, one for the residential scenario and one for the industrial/commercial scenario. The Tier 1 comparison contains objectives (or in some cases ground water standards) for the ground water, ingestion, inhalation, and migration to ground water routes. The Tier 1 approach

requires knowledge of contaminant concentrations and extent, the ground water class, and receptors.

Tier 2 allows for the use of more site-specific information (such as soil and hydrogeological characteristic institutional controls). Tier 2 is useful where actual site conditions do not reflect the assumptions used to derive the Tier 1 values. Tier 2 uses simple analytical models and is still conservative in nature, but allows for site-specific data to be considered. Analytical models similar to the Soil Screening Levels proposed by U.S. EPA and the Risk Based Corrective Action guidance prepared by the American Society for Testing and Material are used to determine site-specific remediation objectives for a site. Tier 3 evaluations address all other situations that cannot be handled under Tier I or Tier 2. Any situation in which an ecological threat is present must be evaluated

under Tier 3. Tier 3 evaluations include, but are not limited to, risk assessments, use different analytical models, impractical remediation due to physical barriers, and the modification of parameters not allowed under Tier 3. In addition to the individual tiers of analysis, there are two alternative means for addressing the presence of contamination: exclusion of pathways and reliance on area background. The first option, exclusion of pathways, is based on the premise that an exposure pathway must exist for contamination to present a threat to human health. If it can be shown that a pathway does not exist for any

contaminants of concern, then that exposure pathway for those contaminants need not be addressed.

The methods for evaluating and excluding exposure routes are set forth in Subpart C of the TACO guidance document. The second option, reliance on area background, is based on Section 58.5(b)(1) of the Act, which provides that the property owner(s) or property custodians shall not be required to remediate contaminants of concern to levels that are less than area background levels. If it can be shown that a contaminant of concern is present at levels that do not exceed area background levels for the property, then that contaminant need not be addressed further. Under appropriate circumstances background levels can also be used as remediation objectives. The method for determining area background concentrations are set forth in Subpart D of the TACO guidance document.

The soil contaminants are compared to the soil remediation objectives established for residential or industrial/commercial properties, with the inhalation, ingestion, and migration to groundwater pathways each evaluated. Current and future land use of the subject property has been determined to be industrial/commercial. Therefore, the contaminants found at the Marathon Electric property will be compared to Tier 1 industrial/commercial objectives. In order for industrial/commercial objectives to apply to the site, an institutional control limiting the property use to industrial/commercial will be required.

3.2 Areas Requiring Further Investigation

Sampling conducted during the Abbreviated Brownfield Redevelopment
Assessment identified inorganic and organic compounds above TACO Tier 1
levels in the soil. Soil sample X104A, exceeded the Tier 1, residential TACO level
for Manganese. Soil sample X107, exceeded the Tier 1, residential TACO level
for Benzo(a)anthracene, Benzo(a)pyrene and Benzo(b)fluoranthene. This sample
also exceeded the Tier 1, commercial TACO level for Benzo(a)pyrene.

The soil and ground water analysis during the sampling event revealed a number of samples that were either above a TACO Tier 1 objective or a Class I ground water objective. All three groundwater samples collected during this investigation exceeded the TACO Class 1, aquifer level for iron and lead. G101 and G108, also exceed the TACO Class 1, aquifer level for Manganese. G107 exceeded the TACO Class 1, aquifer level for Naphthalene and G108 exceeded the TACO Class 1, aquifer level for Vinyl Chloride.

Additional sampling may be needed to fully characterize the areas surrounding these documented exceedences of soil and ground water contamination to provide a better understanding as to the vertical and horizontal extent of the area.

3.3 Exposure Pathway Assessment

The Office of Site Evaluation identifies three migration pathways and one exposure pathway by which hazardous substances may pose threat to human health and/or the environment. Consequently sites are evaluated on their known or potential impact to these pathways. The pathways evaluated are ground water migration, surface water migration, air migration, and soil exposure.

The ground water migration pathway and the soil exposure pathway were evaluated for at the Marathon Electric property. The air migration pathway was not evaluated because air deposition is not thought to be a concern at this time and no air samples were collected. The surface water migration pathway was not formally evaluated because no surface water bodies are located nearby and a majority of the surface water run-off is directed toward an on-site lagoon.

Based upon information gathered during the Brownfield Redevelopment

Assessment, the exposure pathway for the soil ingestion route for industrial/commercial objectives contained one soil samples soil sample 107, exceeded the Tier 1, commercial TACO level for Benzo(a)pyrene. The soil exposure pathway is the pathway of concern at this time.

All three groundwater samples collected during this investigation exceeded the TACO Class 1, aquifer level for iron and lead. G101 and G108, also exceed the TACO Class 1, aquifer level for Manganese. G107 exceeded the TACO Class 1, aquifer level for Naphthalene and G108 exceeded the TACO Class 1, aquifer

level for Vinyl Chloride. G108 exceeded the TACO Class 1, aquifer level for Vinyl Chloride.

Drinking water for the City of Earlville is obtained from deep wells located in and around the city, two of which are located on the former Marathon Electric property. One well is a former production well and it is 225 foot deep, the second well is 887 foot deep sandstone well. In the rural setting around the site private wells are the primary source of drinking water. The closest private well is located within one half mile to the north of the site. This sandstone well is approximately 120 feet in depth. The City of Earlville does not have a ground water ordinance in place for this property.

The air pathway is not thought to be of concern at this time due to the fact that there was no air monitoring samples collected. And the surface body pathway was not evaluated due to the fact that surface runoff flows into storm water drains.

Section 4.0 Summary and Conclusions

In February of 2013, the City Of Earlville requested the Illinois Environmental Protection Agency's assistance in assessing environmental conditions on the abandon industrial property that was the past site of the Marathon Electric Company. Based on the lack of any prior environmental information or investigations it was determined that by providing additional data on surface and subsurface soil conditions the State would be providing valuable information

necessary in advancing the site through the Illinois EPA's Site Remediation Program.

Work performed under the Marathon Electric Facility Abbreviated

Redevelopment Assessment included the characterization of surface and subsurface soils at a number of locations throughout the property, as well as the collection of several groundwater samples where subsurface conditions permitted. These activities all provided data necessary to the understanding of environmental conditions that existed on this property.

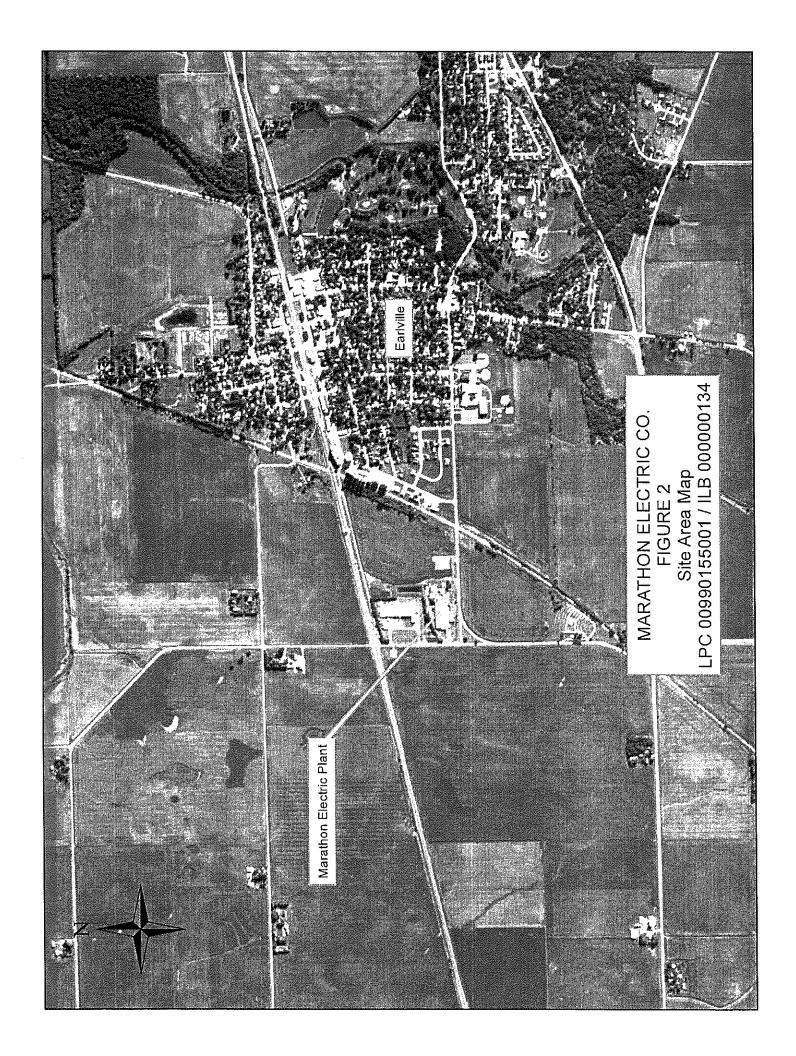
By working with the City of Earlville, the Illinois Environmental Protection

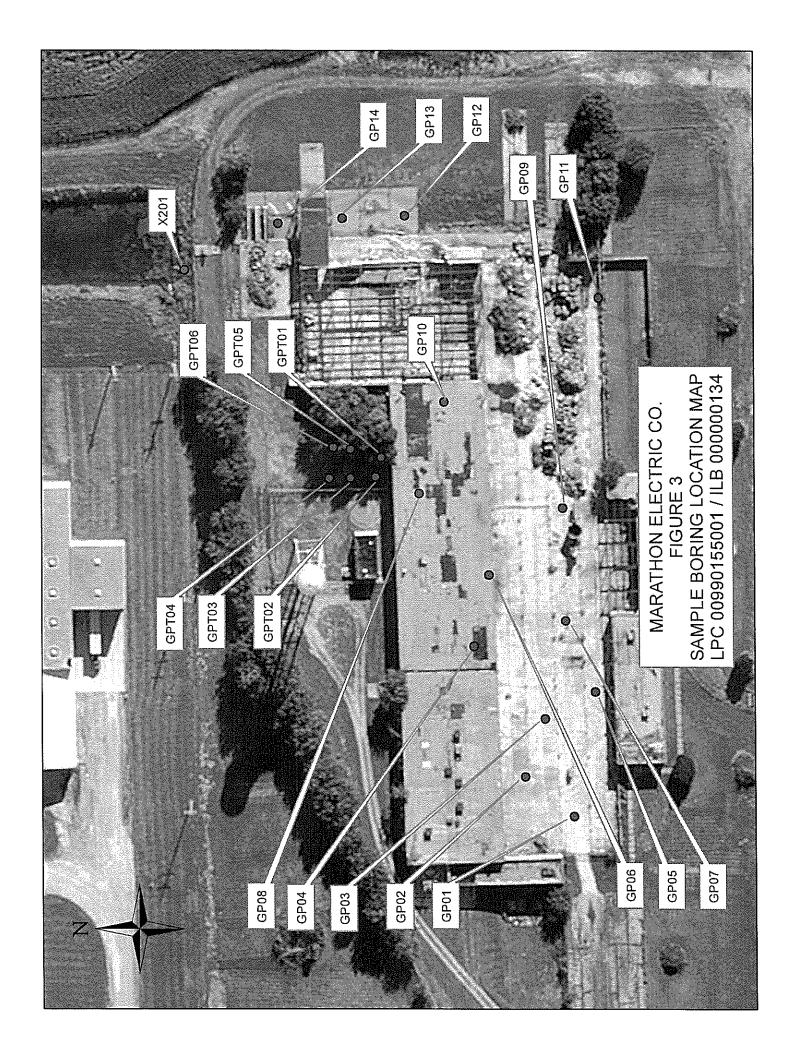
Agency's Office of Site Evaluation was able to provide information essential in
the understanding of environmental conditions of this property, and advancing
the redevelopment of the site.

The analytical results indicate that there is a release of Vinyl Chloride,
Naphthalene, Iron, Lead, and Manganese to the groundwater. These results also
highlight one area that had elevated levels that exceed the Tier 1, residential
TACO level for Manganese and one a second area exceeded the Tier 1,
residential TACO level for Benzo(a)anthracene, Benzo(a)pyrene and
Benzo(b)fluoranthene. The second location also exceeded the Tier 1,
commercial TACO level for Benzo(a)pyrene. Based on these findings it is

recommend that the site be entered into the Illinois EPA's Site Remediation Program.







		LPC 009901550	JPC 00990155001 / ILB 000000134
Sample Number	Date Time	Ілсант	Appearance Sampler Notes
XIOIA	9/24/13 @1230	GP01, SW corner of main building	6-24" dark top sonl, PID 0
XIOIB	9/24/13 @1245	GP01, SW corner of main building	6-11" above itil, tan-brown, grey soft mottled clay, PID 0
X102	9/24/13 @1430	GP02, SW area near storage units	G-12" black top soil, PID 0
X103	9/24/13 @1600	GP03, SW area of main building	G-12" blue grey clay, PID 0
X104A	9/24/13 @1630	GP94, center inside existing building	G-12" course sand, PID 0
X104B	9/24/13 @1645	GPO4, center inside existing building	6-7' blue grey metited clay, PID 0
X105	9/25/13 @0850	GP05, SW area near office building	6-12" blue grey mottled clay; PID 9.
X106	9/25/13 @1000	GP06, center mside existing building	7-8" blue grey mottled sandy clay, PID 25 @ 8" (just above till)
X107	9/25/13 @1045	GP07, center south side of open area	7-8' VOA soft dark clay, remainder sand/gravel mix, PID 4,000 ppb at end
X108A	9/25/13 @1300	GP08, north wall center of existing building	3' blue grey clay (dank) strong fuel odor. PID 27 ppm
X108B	9/25/13 @1330	GP08, north wall center of existing building	5-6' blue grey mottled clay, dark staining, PID 16 ppm
X109A	9/25/13 @1430	GP09, center south side of open area	5-6 blue grey mouted clay, PID 110 ppb
X109B	925/13@1445	GP09, center south side of open area	10-11 brown-grey motuled till, PID, 384 ppb
X110	9/25/13 @1500	GP10, center east end of existing building	10-12 brown-tan mottled clay, fine sand sand gravel, brown-tan till @end, PID 179 ppb
XIII	9/25/13 @1645	GP11, SE comer near small maintenance build	10-12 brown motted clay, PID 9 pbb
X112A	9/26/13 @0830	GP12, center south end of loading dock	1.2' dark black clay, no PID reading
X112B	9/26/13 @0840	GP12, center south end of loading dock	6-7' blue-grey olay, some staining, strong petroleum odor, no PID reading
X113	9/26/13 @0915	GP13, center of loading dock	5-6. blue-grey clay, dark staining, some mottling, strong petroleum odor
X114A	9/26/13 @1000	GP14, center north end of loading dock	2' blue-grey clay, some mottling, some staining, no odor
X114B	9/26/13 @1015	GP14, center north end of loading dock	7-8' tan-goy, mottled silty clay
X201	9/24/13 @1735	9/24/13 @1735 at end of large discharge pipe in norther lagoon. dark brown-black organic rich, no odor	dark brown-black organic rich, no odor

	Table 1.2	, Groundwater Sa	Table 1.2, Groundwater Sample Descriptions
	M	MARATHON ELECTRIC COMPANY	IC COMPANY
		LPC 00990155001/ILB000000134	B000000134
Sample Number 1 G101	Date/Time 9/24/13 @1315	Location GP01	Appearance / Sampler Notes Screened at 10-14'
G107	9/25/13 @1145	GP07	screened at 6-7
TB01	9/26/13 @1245		trip blank
8015	9/26/13 @1345	GP08	screened at:10:14"

							_																			_																									_	_			
	X202	Į Q	z S	QN	Q:	z z	Q N	ON	Q.	2 2	S	CZ	ON:	2	S X	S	2	2 2	2 2	S	ON N	2 :	2 2	2 2	S	Z	2 2	2 2	2 2	N C	Q :	2 2	2 S	S	2 2	2 Z	Q:	2 2	S	S:	2 2	Q Q	ON	2 2	2 S	ON	Q i	2 2	Q	S.	2 2	S C	2 2	S S	
	X114B	2	2	QN	Q:	2 2	2	ON	Q:	2 2	ZZ	Ŝ	Q.	S.	2 2	2	2	2 9	2 2	Q	Q	Q (5 5	2 2	£	CN	2 2	2	Ş	ON N	Ĉ:	2 2	Q Q	QN	<u> </u>	2 S	S.	€ 5	S	S:	2 2	Ş	Q.	윤	<u> </u>	S	8	2 2	£	S :	2 2	} €	Q.	₹ €	
	X114A	S	2	GN	Q :	2 2	2	S.	£	2 5	2 5	S	ON.	2	2 2	£	C i	<u>C</u> 2	2 2	C	GN	2 :	2 2	2 2	S	G.	99	2 2	Q.	Q	ş	2 2	Š	ÖN	2 2	2 2	Q :	2 2	Q	Q.	<u> </u>	2 9	ΩN	2 2	2 2	Q	9 :	2 2	Š	Q.	2 2	2	2 2	g g	
	X113	2	e E	G	Q i	2 2	2	ON	Q.	2 2	2 2	S	GZ :	2 :	ZZ	2	Q i	2 2	2 2	Q	Q	2	2 2	2 2	Q	GN	2 2	2 2	2 2	ON	S:	2 2	O N	Ö	O C	2 0	QN :	2 2	Q.	Q.	0 2	Q Q	ΩN	2 2	2 2	Ş	2	2 2	2 2	2 :	2 Z	5	S :	o S	
	X1178	S	S	QN	Q:	2 2	S	QN	Q:	2 2	Q Q	Š	QN	Q :	Z Z	S	Q.	O 2	2 2	O.	QN	2 :	2 5	2 2	Q	QN	2 9	2 2	2	Q	2	2 2	Š	QN QN	2 2	2 2	QN	2 2	Q.	g.	2 9	Ş	Q	2 2	2 2	S	S.	2 2	Ş	Q.	2 2	<u> </u>	99	윤동	
	X112A	Ę	2	QN	Ç.	<u> </u>	2	CN	2	2 2	2 5	Ş	Ö	g:	2 Z	Ş	Q.	2 2	Z Z	ON	ON	2	2 2	2 2	S	Q	2 2	2 E	2	Q	Q:	2 2	S	QN	2 2	2 2	Ö	2 2	e e	2	2 2	2 2	Q.	<u> </u>	2 2	S	2	5 5	S S	2	2 2	2 S	Z ;	S S	
	×111	S	Ş	ΩN	Q i	C C	S	QN	Q.	<u> </u>	2 2	S	QN.	2	2 2	£	S	2 5	2	Ş	QN	2	2 2	2 2	2	1.9	2 2	2 2	S	O	2	Q 2	2 2	QN	£ £	45	QN	2 2	Ş	QN	2 2	Š	ON	2 2	2 2	2	S.	<u> </u>	2	9	S 5	2 2 2	S.	S G	
	X110	Ş	2	Q	CZ.	2 2	2	S	2	2 5	2 2	2	GN	G i	2 2	2	Q	Q 2	2 2	ç	ND	<u>Q</u> :	2 2	9 9	Ş	4	2 2	2 2	2 2	Q	S	O 6	Q Z	QN	2 2	£ 5	QN	2 2	Q	Q	2 5	2 2	ND	2 2	2 2	ND	C Z	Z Z	Z Z	Q :	S S) S	0 2	Q Q	
_	X109B	2 2	ê	Š	C .	C C	2	ON.	S	29	2 2	2	QN	2	5 5	Ş	Q.	5 5	2 2	Q	Ö	9 :	2 2	Ş	g	190	950	2 2	2 2	Q	QN	2 5	2 2	QN	£ ;	0 Q	56	2 9	2	ND	2 9	S	O.	2 2	2 2	S	9	2 2	2	QN :	2 5	Ş	S :	a g	
ELECTRIC, LPC 00990155001	uits X109A	S	9	Q	Š	99	2	S	S	2 9	2 2	Ş	Q	2	2 2	Ş	Q.	Q S	2 2	Q	ON	G :	2 2	e e	S	83	9	9 9	2 2	Q	QN	2 2	2 8	QN	2 5	Ş	ON	30	Q.	Q	99	2 2	Q	€ 5	2 2	Ş	Ş	2 2	£ 5	S	2 5) S	S :	2 S	
C 0099	Soll/Sediment Results	S	2	QN	S	2 2	Q Q	QV	Q	2 9	2 8	Ş	ND	2	2 2	2	N C	2 2	2 2	Š	Ö	2	2 2	2 2	S	4.1	2 2	2 5	2 5	QN	QN	2 5	2 2	ND	2 9	2 2	ON	Q 2	S	8	9 9	2 2	Q	2 5	2 2	S	Q	2 2	<u> </u>	Q.	S S	3 8	2	2 €	
RIC, LP	Soll/Sedi	2	2	Q	Š	2 2	2 2	ND	Q.	2 :	2 2	e e	QN	Q:	2 2	Q	QN	Q P	e e	Q	ON	QN :	2 2	S S	Q.	Ü	2	2 2	3 5	210	1300	S	2 S	QN	Q.	2 2	CN	S 2	2	QN	2 5	2 2	NO.	2 2	2 2	2 2	ND ND	5 5	Z Z	GN	Q 2	ŠŠ	QN :	CN CN	
ELECT	Fable 2.1, Organic x105 x107	2 5	2	Q.	S	2 2	2	CN	Q.	2 2	2 2	S	CN	S.	5 5	2	Q.	2 2	2 2	ş	CN	QN :	2 2	2 5	Ş	S	S	2 2	9 2	N	QN	2 2	2 2	8	9	2 2	S	g :	- S	SP	2 5	S S	Š	2 5	<u> </u>	Š	QN	S S	5 5	QN	S 8	ND ON	S	S S	
MARATHON	Table 2.1. x106	2	Š	Ñ	Q	2 2	Ē	S	N N	2 9	2 2	9	QN	Q	2 5	<u>8</u>	QN	2	2 S	g	Ç	Q:	2 5	2 2	ĝ	82	2	2 2	Z Z	Q.	S	2 2	2 2	QN	S.	25 21 21 21	450	2 9	Ş	S	2	<u> </u>	ON	<u>2</u> :	2 2	S	CZ	99	2 2	S	8 8	3 S	QN:	G G	
MARA	X105	3 2	S	ON	Q	2 2	C Z	ON	QN	<u>2</u> 2	2 2	S	ON	S	2 2	Š	Ö	Q (2 2	N O	QN	S	2 5	2 2	Q Q	QN	Q.	2 2	2 2	S N	Q.	2 5	2 2	S	2 2	2 2	O.N.	2 2	2 2	CN	2	2 2	CN	S :	2 2	2	ON ON	2 5	2 2	ND	2 2	S S	Q.	O O	
	X104B	S C N	2	S	ND	2 2	2 2	N	S	2 :	2 2	Z O	QN	Q.	0 S	0 0 0	QN	Q S	2 2	S C	QN	QN	2 2	2 5	2	ON.	2	2 2	2 2	S	O.	S :	2 2	S	S :	2 2	Q.	2 2	2 2	GN	£ :	2 2	S	2:	2 2	Z C	QN	2 2	2 2	9	Q 2	S S O C	Q.	O C	
	X104A		2	Q	QV	2 9	Ş	Q	Ş	2 :	2 5	2	ND	Q	Z Z	2 2	Q	Ö.	Z Z	S	Q	Q.	2 9	2 2	2 2	S	2	S S	2 2	S	Š	2 :	2 2	S	<u>2</u>	<u> </u>	S	2 :	2 9	S	9 :	2 S	Q	Q !	2 5	ŞŞ	Q	2 :	2 2	S	S S	3 S	9	2 £	
	X103	3 2	2 2	CN	Q	S 5	ž	Q	Q	2 9	5 5	2	Ş	S	2 2	2	ND	Q.	2 2	Ŝ	Q	ND	Ž	2 2	2 2	S	Q:	<u> </u>	2 2	2	S	운 :	2 2	S	2	2 2	Š	2 :	2 2	Q	2	2 2	9	Q :	2 5	£ 5	QN	2	2 Z	Ŝ	S 8	2 2	2	Q Q	
	X102	2 2	2 2	2	G	2 2	2 2	Q	SP	Q.	2 2	2 2	S	Q.	2 2	S Z	C	9	2 2	2	CN	2	<u> </u>	2 2	Q Q	QN	Q.	2 2	2 2	Ş	QN	0 K	2 2	S C	Q.	C C	O N	Q (2 2	QN	Q.	2 2	Q.	S	2 2	2 2	Q	2	2 2	Z C	Z :	2 2	S	Q Q	
	atot.	2 5	2 2	Q	QN	Q S	2 2	QN	Q	Q.	2 2	2	Q	QN	O 2	2 2	CN	Q i	2 2	Ç Ç	Q	QN	e e	2 2	2 2	Q	Q	2 2	2 2	Z Z	ON	2	2 2	Q Q	2	C 2	2	G :	2 2	Q	QN.	2 2	2	윤	2 2	S S	Q.	C i	2 2	e Z	2 2	0 Q	Q ·	QN CN	
	A1017	5 5	2 2	S	QN	g s	2 2	Š	QN	S S	2 2	2 2	2	Q	2 5	2 9	S	S.	2 2	2 2	g	S	2 :	2 2	2 2	Q	Q.	2 2	2 2	S S	C)	Q :	2 2	2	ND	<u>Ş</u> §	S	2	2 2	S	Q	Ċ Z	ĝ	Q.	2 2	2 2	Q	2	2 2	g	Q S	§ §	S S	C C	
	2000	UNIKR 1113 Townshoroshoos	1.1.2 Techloroethane	1.1.2.2 Tetrachloroethane	1.1.2 Trichloroethane	1.1 Dictiloroethano	1,1 Dichbronmone	1.2.3 Trichloropropane	1.2 Dibromoethane	1.2 Dichloroethane	1.2 Dichbropropano	1.3 Dichlaropropane 2.2 Dichlaropropane	2 Butanone (MEK)	2 Hexanone (MBK)	4 Methyl 2 pentanone (MIBK)	Renzene	Bromobenzene	Bromochbromethane	Bromodichloromethane Bromoform	Bromomethane	Carbon disultine	Carbon tetrachlorida	Chlorobenzene	Choroellane	Chloromethane	is 1,2 Dichloroethene	cis 1,3 Dichloropropene	Orbromochlaromethane	Dibromomethane	Isopropylbenzene	Methyltert batylether	Mothylene chloride	Styrene	Tokene	trans 1,2 Dichloraethene	trans 1,3 Dickloropropeno Tembroothogo	Trichloroffkoromethane	Vmylchloride	Xyenes, total 1.2.4.5. Tetrachloroboxono	1,2,4 Trichlarabanzane	1.2 Dichbrobenzene	1.2 Dantrobenzene 1.3 Dichbrohenzene	1,3 Dinitrobenzene	1.4 Dichlorobenzene	1.4 Dantrobenzene	1 Naphhylamno	Oxybis(1 chloropropane)	2.3.4.6 Tetrachlorophenol	2.4.5 Trichlorophonol	2.4 Dichlorophenol	2.4 Dimethylphenol	2.4 Dinitrophenal 2.4 Dinitrolohena	2.6 Dichlorophenol	2.6 Darkrotokrene 2 Chloronaphthalene	
		,	<u> </u>	-	-										Me			ω.	æΣ			_				Œ	S	Õ			-2				Ē	Irar	Ξ		, ,	-		-	-		•		2.2 0	2.3	cu n	4					₽¢.

6

_	33		CN	0.7			_		_					_			^	^ ′					_		_	_	^	_	_	_	_	_	_	_	_						_	_			_		_		_	^ -			_	_	_				_					. ^		
																																											g												Q.			_							2 3	
	A X1148		S	ž	2 2	Z	E E	2	2 2	2 2	2 2	Q Z	Z	2	av	2	Z	2 2	2 2	2 2	Ž	Z	Z	SZ.	N	2																						물	2	2	2 2	2 2	Ę	QN	Š	2 9	2 2	2 2	QN	Ş	2	2 2	2	9	2 1	Ž
	X134A		œ.	2 2	2 2	ĝ	9 N	S	2 9	2 2	2 2	9	2	Ş	ON	ĝ	2	9 9	2 2	2 2	2	S	Q	QN	QN	D N	QN	Ö	Ŷ	Q Z	Q	Q	g	£	9	Q !	2 9	2 9	2 2	Ş	Ş	g	2	물	QN Q	2 :	2 2	2	2	ž	3 5	9 9	2	S	ş	2 9	2 5	2	2	Q.	Q i	2 2	e e	e e	ĝ:	S
	X113		9	2 :	2 2	2	MD	Ş	2 5	2 9	2 2	2	S	Ş	ON	Q N	QN	2 5	2 2	Ž Ž	2	Q	Q	Q	2	Q	Q	CN	Ş	g	QN	QN	2	2	2	2	2 9	2 2	2 2	2	Ş	2	2	ĝ	Ç	2 9	2 2	2	Q	₽:	2 5	2 5	ŝ	S	S	2 5	2 2	2 2	QN	Q	Q.	2 5	9	2	₽ 9	ŝ
	X1128	Ş	Q.	2 9	2 2	2	ŝ	£	2 2	2 5	2 2	9 9	2	Š	Q.	NO	S S	QN S	2 2	2 2	9 9	2	QN	g	2	Ş	g	ĵ	Q.	2	2	õ	g	2	ş	2	2 9	2 2	2 2	2 2	Ş	ĝ	53	Ş	QV	2 9	2 2	9	S	QV.	2 2	2 2	2	2	Q	9 9	2 2	2	QN	QN	Q.	Q 2	Ş	g	2 :	QN
	X312A	Q	Q.	2 5	2 9	Q N	QN	2	2 5	2 2	2 5	2	Ç.	9	Q	G Z	Ğ	2 :	2 9	2 2	2 2	e e	S	2	Q	ΩN	2	2	Ö	Q	Q	N	Ö	œ	2	Q	2 2	2 2	2 2	2 2	Ċ	0	2	Ö	Q	<u>0</u> :	2 2	2	2	Q Z	2 2	2 2	ĝ	QN	2	9 9	2 9	2 9	ON	Q	2	2 9	2	2	2 :	Ē
	LLI X	S	G.	2	2 5	2	£	Q	2 5	2 2	ž	Q Q	2 C	ŝ	QN	G.	GN	ů i	2 1	2 2	2 2	Q	Q	2	2	Q.	Q	æ	G	Q	9	QN QN	Q	Ç	2	Q.	2 9	2 9	2 2	2 2	2	Ş	Ş	QN	S	2 9	2 2	2	Q.	Q	2 2	2 2	9	OZ	ů.	9	2 2	2 2	QN	2	<u>Q</u>	2 1	9	2	£ (Ę
	X110		S	£ :	2 2	£	MD.	Ŝ	9 9	2 2	2 2	Q Q	Ž	G	Ğ	Ŝ	NO	Î.	2 :	2 2	e e	2	C N	Q.	ON	QN	Ê	92	2	QN N	2	Q	2	ş	Q.	Q.	2 :	2 ;	053	2 2	2	Ş	S	QN	ŝ	G :	2 2	S S	QN	Ω	2 2	2 2	QN	QN	QN	9	5 5	e e	Ü	Q	2	Q P	Š	2	2	GΝ
7	X109B	QN	QV	9 9	2 2	2	ON NO	2	2 2	2 :	2 2	2 2	5	Ö	ON	2	S	<u>2</u>	2 :	2 1	2 2	2	Q	9	GN	Q	QN	QN	Q	Ş	G₩	Œ	Ş	S	S	S	₹ :	2 5	2 5	2 5	2	2	2	č	Ş	⊋ :	2 2	9	GN	Ş	2 9	2 2	ê	Ş	QN	€ :	2 2	2 2	Q	N	2	2 9	2 2	2	ON :	Ē
15500	8	2	QV.	9 :	2 8	Ē	Ş	S.	2	2 9	2 2	g g	2	2	S S	92	Q.	9	2	3 5	2 2	2 2	S	9	QN	S	g	Ş	Q.	S	ON	9	S	9	g	Ş	⊋ :	2 9	2 2	5 5	2	2	2	2	QN	€ :	2 2	2	S	ş	£ 5	5 5	2	QN	ΩN	2	2 2	2 2	MD	QN	Ŝ	<u> </u>	2 2	2	9	S
060	SOULZ-BOUNDERL RESUILS (107 X108A X108B X109A	QN	Q	2	2 2	2	QN	NO.	Q 9	25	2 2	2 5	2 2	Ş	S	ON	Q.	G.	Q :	2 2	2 5	2 2	Q	e e	Q N	QN	QN	GM GM	Q	Q.	CM	Q	Q	G#	Ç	Ç	2 :	2 1	2 9		2 5	2 2	9	S	QN	GN S	2 5	2	NO.	QN.	9	2 2	2	GN	₩D	G S	2 9	2 2	QX	ΟN	Q	Q :	2 2	e e	ON:	QN
LPC	108A	Q.	Q.	760	2 2	200	GN	Q.	9 1	2 2	2 2	9 9		2 9	QN	QH.	GN	QN :	<u>9</u> 1	2 2	2 2	2 2	2	Q	QN N	GN	AD.	ON ON	Q.	ND.	NO.	QN	QN	Q Q	QN	Ω	9	2 9	2 2	2 9	2 2	9	2 2	6.7	ΩN	£ :	2 2	9	Q.	CM	2 9	2 9	2 2	99	QN.	Q :	<u> </u>	2 5	Q.	GN CN	GN	€ 5	2 2	2 <u>2</u>	120	G A
RC,	% X		400	9	9 9	Q N	QN	ΩĐ	Q :	022	9 2	2 2			QN																																																		02	
ECT:				2 :		e e	ON	ON	2	2 :	2 9	2 2	2 2	€ €	S	G#					2 2								QN				NO 3					2 1		5 5					GN	Q.	2 9	2 2	NO.	GN	2 :	2 2	ND 20	92				2 2	2	ON	Q	96 Ge 4	2 2	- 2 - 2	9	
SNE	abie 2.2, Organic 048 X105 X108	QZ	Ð	<u>0</u>	2 2	2 2	Q	Q.	Q :	2 :	2 9	2 2	2 2	2	Q	QN	ON	QN.	2 :	2 9	2 5	2	2	O N	ND	ON	GN	æ	QN	GN.	O.M.	Q.	Q.	QN	C N	Q.	2	Q :	2 9	_ c	2 2	2 2	2 2	S	CN	QV :	2 9	2 2	2	ON	2 :	2 2	2 2	ON.	ON	GN.	<u> </u>	2 5	202	O¥.	Q.	2 2	2 2	2 2	Q.	G
MARATHON ELECTRIC, LPC 0090155001	BDI	QN	Q	2	2 1	2 2	02	2	9	2 9	2 9	2 5	2 2	2	Q	QN	Q	Ç	9	2 9	<u> </u>	2 9	2	e e	Q	Q	S S	QN	QN	Q	2	Q	QN	QN	æ	Z Q	2	2	2 2	2 1	2 2	2 2	2	Q	GZ.	9	2 9	2 2	Q ON	QN	2 :	2 5	2 2	Q	Q	Q.	2 :	2 5	2	QZ.	Q	2 9	2 5	2 2	Ê	GN
MAF	X104A)	Q.	Q	Q.	2 5	2 2	O.	Ω̈́	<u>0</u> :	2 :	2 2	2 2	1 2	2	Q.	QK QK	QN	Q	S :	2 9	2 2	2 2	2 5	2 2	S	ON	ON	GN	NO	S S	QH.	ON	E CH	Q.	ON	QN	ê	<u> </u>	2 5	2 2	2 2	2 2	2 2	Q.	QN.	Q.		2 2	2	GN	9	2 9	2 2	OK.	ON ON	ΩN	9 9	2 5	2 2	QN	GN	9	2 2	2 2	£	ŝ
	X 103 X		QN	Q !	9 9	2 0	9	Q Z	9	2 :	9 9	2 2	2 5	2 2	2	Ç	QN	Q	2 :	2 :	2 2	2 5	2 2		£	ON CO	ON	QN	ON	QN	Q	ON	Q.	QN	ON	Ö		<u>0</u> :		2 2	2 2	2 2	2 2	2	ND	NO	2 2			GN	Q S	2 9	2 2	2	ON	GN	Q :	2 5	2 2	ON	S	윤 :	2 2	2 2	€	ş
	X102		QN	2	2 2	2 2	Q	Q	Q	9	9 9	2 5	2 2	2 2	5	QN	QN	Q.	9	9 9	2 2	2 5	2 5	2	9	2	25	Q.	QN	QN	GN	Q	QN.	QN	Î	QN	QN	2	Q i	2 2	2 2	2 2	9 2	9	QN	Ö		2 2	2	Q	2		2 2	9	GN	9	2		2 2	2	GN	2 9	2 2	2 5	£	QN
	X101B		QN	Q	9	9 2	QN	ON ON	0	Q :	9 9	2 5	2 2	2 2	2	QN	QN	QN	Q :	≘ :	2 2	2 5	9 9	2 5	Q	Q	GN	QN	QN	QN	OZ.	Q	QN	ďΝ	QN	QN	œ.	<u>Q</u>	0 1	9 2		2 2	2 2	2	0	QN	2 :	2 2	2	QN	Q :	<u> </u>	2 5	2	Q	GN	2 9	2 2	2 2	2	Q	Q :	2 9	2 5	9	MD
	X Atorx	9	Q	ON	<u> </u>	9 9	2	9	Ç	9	9 !	2 9	9 9	2 2	9	9	S S	Q	<u>9</u>	9 9	2 2	9 9		2 2	9	9	9	9	9	9	9	9	ç	9	9	ç	9	9 '	9 !	9 9	2 9	99	9 9	9	G.	Q.	9 9	9 9	9	ZĐ.	g :	9 9	9 5	9	2	Ę.	9 9	99	9	9	9	9 :	9 9	9 5	2 2	ç
	×	•	_				. –	_	-		7			_	_		_	_	renc	- '					_	_	_	-					~	-	_	_	_		~				- "-		_		-	- ~		_	-										_					
	D. Wall	2 Chlorophenol	2 Methylnaphthalene	2 Mathyphenal	2 Naphthylamine	2 Mitcoheng	2 Picolan	3,3 Dichlorobenzidno	3 Nitroanilne	6 Dmitro 2 methylphenol	Bromophenyl phenyl ether	4 Chloro 3 methylphenol	4 Chieraanune	, morognesnyc presnyr can 4. Mathylahonof	4-Nitroaniine	4 Minobehenyi	4 Narophenol	5 Nitroaconaphthono	Denethylbenzo(a)anthrac	Acenaphthene	Acenaphthylene	Acetophono	Asshortono	Ronzofatostheres	Benzefahwrene	Reportibilinganihana	Benzelehaberylene	Renzelkillugraninen	Bis(2 chloroethoxymethang	Bis (2 chlorosthyBelther	BEG P. ethylhexyllebille	Rutyl henzyl obthalate	Carbazolo	Chrysene	Othonzo(a.h)antkracono	Dibenzoluran	Diothylphthalate	Dimethylphthalate	Or n butyphthalate	Di n octyphthalate	Upnenyaamme	Einyi mathanasulionaia	Electronic	Hexachlorebenzene	Hexachlorobutadiene	Hexachlorocyclopentadione	Hexachloroethane	Hoxactionopropens	Indental Callegram	trophorone	Isospirole	Mestranol	radinys megnanersmonard Moobibalene	Mitrobenzene	R Nitrosodi n butylamino	N Nitrosodi n propytamine	N Mitrosopipendina	Ormethylaminaa zobonzeno	Penachloronirobenzone	Pentachlorophenol	Phonacetin	Phenanthrone	Phonoi	Probabilitation	Pyriding	Safrolo
										₹	4	-1		7					15										Bas	;	Œ	2			_						٠					=		-	-			-	2		≈	z		0	a	-						

						MARATH(IH I	ON EL	LECTF	FRIC, L	PC 00990155001	9901	55001							
								Table 2.3	3, Inorç	_l anic So	, Inorganic Soil Results	δί								
mg/kg	X101A	X101B	X102	X103	X104A	X104B	X105	X106	X107	X108A	X108B	X109A	X109B	X110				X113	X114A	X114B
Aluminum	14400		16600	18700		14000	23200	8350		15500	15100	17200	9580	0606	6890			16700	18700	10100
Antimony	Q		2	Q		R	ND	S		S	2	Q	9	2				S	Q N	Q.
Arsenic	Q	2	S	9		Q	4.99	Q Q		2	6.18	ND	2	Q Q				N Q	10.1	5.36
Barium	160	176	122	161		120	166	41.8		122	181	121	55.4	47.2				203	229	89.0
Beryllium	0.46	0.34	0.53	0.54		0.38	0.98	0.26		0.38	0.46	0.48	0.35	0.24				0.45	0.63	0.28
Boron	9.28	13.1	10.7	10.5		1.1	12.5	14.5		12.0	11.0	10.1	16.3	14.2				10.6	14.4	12.0
Cadmium	4.31	5.92	4.68	4.87		4.86	7.91	4.44		5.55	4.61	4.32	5.09	3.78				5.59	9.14	4.90
Calcium	5070	24900	4550	3940		17200	5030	82900	$\overline{}$	29900	16700	21800	56000	76600				8010	0906	44600
Chromium	18.4	18.4	22.0	26.7	23.5	21.2	29.4	13.4		21.8	21.6	24.5	15.9	14.4		28.1	24.9	24.0	25.2	15.6
Cobalt	7.85	10.5	8.81	5.59		6.24	13.4	6.33		8.91	7.63	13.9	10.3	6.73				7.65	16.7	7.08
Copper	12.5	23.2	13.1	13.3		13.7	20.0	14.7		47.2	13.2	17.5	14.0	12.6				21.5	20.7	15.6
Iron	15000	20400	17000	18200		16600	30100	14200		17800	16100	14800	17200	12400				18500	31600	16400
Lead	12.4	12.1	12.0	6.53		6.54	16.6	5.59		25.7	8.95	6.44	6.72	5.35				8.97	11.5	7.13
Magnesium	3380	16000	3960	4650		11900	4830	42400	$\overline{}$	15000	11300	13100	32400	38300				6650	0689	26800
Manganese	328	877	438	258		331	503	206		643	289	398	571	345				393	1490	481
Nickel	13.8	22.5	16.6	20.9		15.2	21.6	18.0		18.7	20.4	23.4	17.3	13.2				19.9	37.2	16.7
Potassium	1600	1960	1560	1520		1490	1830	2010		1650	1560	1780	2620	2130				1410	1770	1520
Selenium	2	2	2	Q		Q	잎	S		9	Q	g	S	2				S	R	<u>Q</u>
Silver	2	2	2	Q		Q	잎	2		Q	2	Q	2	2				2	9	9
Sodium	9	S	Q	Q		Q	잎	S		S	Q.	S	9	2				S	Q	Q
Strontium	15.6	23.3	15.3	18.3		20.5	18.5			25.7	20.4	20.5	25.7	33.7				20.7	23.3	26.2
Thallium	9	g	Q	Ω		9	Q.	S		g	Q	2	S	Q				2	S	<u>Q</u>
Vanadium	31.6	34.1	41.1	39.6		32.3	53.6			36.1	34.2	36.9	22.4	20.9				38.2	56.6	27.5
Zinc	0.99	60.4	53.8	53.7		51.5	78.2	36.7		83.4	54.2	50.4	39.2	36.1				61.1	64.5	51.1

MARATHON ELECTRI Table 3.1, Orga				
ug/L	G101	G107	G108	Units
1,1,1,2-Tetrachloroethane	ND	ND	ИD	ug/L
1,1,1-Trichloroethane	ND	ИD	ND	ug/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ug/L
1,1,2-Trichloroethane	ИD	ND	ND	ug/L
1,1-Dichloroethane	ND	ND	ND	ug/L
1,1-Dichloroethene	ИĎ	ИD	ND	ug/L
1,1-Dichloropropene	ND	ND	ND	ug/L
1,2,3-Trichloropropane	ND	ND	ND	ug/L
1,2-Dibromoethane	ND	ND	ND	ug/L
1,2-Dichloroethane	ND	ND	ND	ug/L
1,2-Dichloropropane	ND	ND	ND	ug/L
1,3-Dichloropropane	ND	ND	ND	ug/L
2,2-Dichloropropane	ND	ND	ND	ug/L
2-Butanone (MEK)	ND	ND	ND	ug/L
2-Hexanone (MBK)	ND	ND	ND	ug/L
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	ug/L
Acetone	ND	ND	ND	ug/L
Benzene Bromohonzono	ND	ND	ND	ug/L
Bromobenzene Bromochloromethane	ND	ND	ND	ug/L
Bromochloromethane Bromodichloromethane	ND	ND	ND	ug/L
Bromodichioromethane Bromoform	ND ND	ND ND	ND	ug/L
Bromomethane	ND ND	ИD	ND ND	ug/L
Carbon disulfide	ND	ND ND	ND ND	ug/L
Carbon tetrachloride	ND	ND	ND ND	ug/L
Chlorobenzene	ND	ND	ND ND	ug/L ug/L
Chloroethane	ND	ND	ND	ug/L
Chloroform	ND	ND	ND	ug/L
Chloromethane	ND	ND	ND	ug/L
cis-1,2-Dichloroethene	ND	ND	19	ug/L
cis-1,3-Dichloropropene	ND	ND	ND	ug/L
Dibromochloromethane	ND	ND	ND	ug/L
Dibromomethane	ND	ND	ND	ug/L
Ethylbenzene	ND	5.1	ND	ug/L
sopropylbenzene	ND	ND	ND	ug/L
Methyl tert-butyl ether	ND	ND	ND	ug/L
Methylene chloride	ND	ND	ND	ug/L
Styrene	ND	ND	ND	ug/L
Tetrachloroethene	ND	ND	ND	ug/L
Toluene	ИD	2.2	ND	ug/L
trans-1,2-Dichloroethene	ND	ND	ND	ug/L
rans-1,3-Dichloropropene	ND	ND	ND	ug/L
Trichloroethene	ND	ND	18	ug/L
Trichlorofluoromethane	ND	ND	ND	ug/L
Vinyl chloride	ND	ND	3.8	ug/L
Xylenes, total	ND	26	ND	ug/L
1,2,4,5-Tetrachlorobenzene	ND	ND	ND	ug/L
1,2,4-Trichlorobenzene	ND	ND	ND	ug/L
1,2-Dichlorobenzene	ND	ND	ND	ug/L
1,2-Dinitrobenzene	ND	ND	ND	ug/L
1,3-Dichlorobenzene	ND	ND	ND	ug/L
1,3-Dinitrobenzene	ND	ND	ND	ug/L
1,4-Dichlorobenzene	ND	ND	ND	ug/L
1,4-Dinitrobenzene	ND.	ND	ND	ug/L
1-Chloronaphthalene	ND	ND	ND	ug/L
1-Naphthylamine	ND	ND	ND	ug/L
2,2-Oxybis(1-chloropropane)	ND	ND	ND	ug/L
2,3,4,6-Tetrachlorophenol	ND	ND	ND	ug/L
2,4,5-Trichlorophenol	ND	ND	ND	ug/L
2,4,6-Trichlorophenal	ND	ND	ND	ug/L
2,4-Dichlorophenol	ND	ND	ND	ug/L
2,4-Dimethylphenol	ND	3.0	ND	ug/L
2,4-Dinitrophenol	ND	ND	ND	ug/L
2,4-Dinitrotoluene	ND	ND	ND	ug/L
2,6-Dichlorophenol 2,6-Dinitrotoluene	ND	ИĎ	ND	ug/L
2,6-Dinkrotoldene 2-Chloronaphthalene	ND ND	ND ND	ND ND	ug/L ug/L

Table 3.2, Organic Groundwater Results Units G107 G108 Units Units	MARATHON ELECT	RIC, LI	C 0090	15500	1
2-Chiefryphaphthalene					
2-Methylphenol					Units
2-Mathylphenol		-			
2-Naphthylamine		_			-
2-Nitrophenol ND ND ND Uq/L			_		
2-Nitrophenol					
2-Piccinice					-
3-Nitroaniline					-
4.6-Dinitro - 2-methylphenol ND ND ND ug/L 4-Bromophenyl phenyl ether ND ND ND ND ug/L 4-Chloro-3-methylphenol ND ND ND ND ug/L 4-Chlorophenyl phenyl ether ND ND ND ND ug/L 4-Methylphenol ND ND ND ND ug/L 4-Nitrophenol ND ND ND ND ug/L Acenaphthene ND ND ND ND ug/L Acenaphthylene ND ND ND ug/L Acenaphthylene ND		ND	ND	ND	ug/L
A-Bromophenyl phenyl ether					
4-Chloro-3-methylphenol ND ND ND Uq/L					
4-Chlorophenyl phenyl ether ND ND ND ug/L 4-Methylphenol ND ND ND ND ug/L 4-Mitrophenol ND ND ND ND ug/L 4-Nitrophenol ND ND ND ND ug/L 4-Nitrophenol ND ND ND ND ug/L 4-Nitrophenol ND ND ND ug/L 4-Nitrophenol ND ND ND ug/L 4-Nitrophenol ND ND ND ug/L 4-Cenaphthene ND ND ND ug/L Acenaphthene ND ND ND ug/L Acetophenone ND ND ND					•
4-Chlorophenyl phenyl ether ND ND ND ug/L 4-Methylphenol ND ND ND ND ug/L 4-Nitrophenol ND ND ND ND ug/L 4-Nitrophenol ND ND ND ND ug/L 5-Nitroscenaphthene ND ND ND ND ug/L Accnaphthylene ND ND ND Ug/L Accnaphthylene ND ND ND Ug/L Acctophenone ND ND ND Ug/L Actophonone ND ND ND Ug/L Actophonone ND ND ND Ug/L Actophonone ND ND Ug/L					•
A-Methylphenol					
4-Nitrophenol ND ND ND uq/L 4-Nitrophenol ND ND ND uq/L 5-Nitroacenaphthene ND ND ND uq/L Acenaphthylene ND ND ND uq/L Acetophenone ND ND ND uq/L Benzo(a)phtherene ND ND ND uq/L Benzo(a)phtherene ND ND ND uq/L Benzo(k)fluoranthene ND ND ND uq/L Benzo(k)fluoranthene<		ND	ND	ND	
4-Nitrophenol ND ND ND uq/L 5-Nitroacenaphthene ND ND ND uq/L 7-12-Dimethylbenzo(a)anthrac ND ND ND uq/L Acenaphthylene ND ND ND uq/L Acenaphthylene ND ND ND uq/L Acetophenone ND ND ND uq/L Benzo(a)anthracene ND ND ND uq/L Benzo(a)aphtracene ND ND ND uq/L Benzo(a)aphtracene ND ND ND uq/L Benzo(ch)fluoranthene ND ND ND uq/L Benzo(ch)fluoranthene ND ND ND uq/L	4-Nitroaniline	ND	ND	ND	uq/L
5-Nitro acenaphthene ND ND ND ug/L 7,12-Dimethylbenzo (a) anthrac ND ND ND ug/L Acenaphthlene ND ND ND ug/L Acenaphthylene ND ND ND ug/L Acetophenone ND ND ND ug/L Actophenone ND ND ND ug/L Actophenone ND ND ND ug/L Actophenone ND ND ND ug/L Benzo(a)anthracene ND ND ND ug/L Benzo(b)fluoranthene ND ND ND ug/L Bis(2-chloroethyl)	· ·				
7.12-Dimethylbenzo(a) anthrac	•				
Acenaphthene ND 36 ND uq/L Acenaphthylene ND ND ND ug/L Acetophenone ND ND ND ug/L Acetophenone ND ND ND ug/L Azobenzene ND ND ND ug/L Benzo(a)pyrene ND ND ND ug/L Benzo(b)fluoranthene ND ND ND ug/L Benzo(k)fluoranthene ND ND ND ug/L Bis(2-chloroethyl)ether ND ND ND ug/L Bis(2-chloroethyl)ether ND ND ND ug/L Bis(2-chloroethyl)ether ND ND ND ug/L Carbazole ND ND ND ug/L <tr< td=""><td>•</td><td></td><td></td><td></td><td>•</td></tr<>	•				•
Acenaphthylene ND ND ND ug/L Acetophenone ND ND ND ug/L Anthracene ND 5.5 ND ug/L Azobenzene ND ND ND ug/L Benzo(a)anthracene ND ND ND ug/L Benzo(b)fluoranthene ND ND ND ug/L Benzo(k)fluoranthene ND ND ND ug/L Bis(2-chloreethyl)ghthalate ND ND ND ug/L Bis(2-chloreethyl)ghthalate ND ND ND ug/L Chrysene ND ND ND ND ug/L Chrysene ND ND ND ug/L			_		-
Acetophenone	•	-			-
Azobenzene					
Benzo(a)anthracene	Anthracene			ND	
Benzo(a)pyrene					-
Benzo(b)fluoranthene					-
Benzo(qhi)perylene	1.11.3				
Benzo(k)fluoranthene					-
Bis(2-chloroethoxy)methane ND					-
Bis(2-chloroethyl)ether					
Butyl benzyl phthalate		ND	ND		
Carbazole ND 22 ND ug/L Chrysene ND ND ND ND ug/L Dibenzofuran ND ND ND ug/L Diethylphthalate ND ND ND ND ug/L Dienthylphthalate ND ND ND ND ug/L Dirn-butylphthalate ND ND ND ND ug/L Dirn-octylphthalate ND ND ND ND ug/L Diphenylamine ND ND ND ND ug/L Ethyl methanesulfonate ND ND ND ND ug/L Ethyl methanesulfonate ND ND ND ND ug/L Ethyl methanesulfonate ND ND ND ug/L Hexachlorobutadiene ND ND ND ug/L Hexachlorobutadiene ND ND ND ND ug/L Hexachlorocyclopentadiene ND ND	Bis(2-ethylhexyl)phthalate	ND	ND	ND	uq/L
Chrysene ND ND ND ug/L Dibenzo(a,h)anthracene ND ND ND ug/L Dibenzofuran ND ND ND ug/L Diethylphthalate ND ND ND ug/L Dimethylphthalate ND ND ND ND ug/L Din-octylphthalate ND ND ND ND ug/L Diphenylamine ND ND ND ND ug/L Ethyl methanesulfonate ND ND ND ND ug/L Ethyl methanesulfonate ND ND ND ND ug/L Ethyl methanesulfonate ND ND ND ug/L ug/L Hexachlorobenzene ND ND ND ND ug/L Hexachlorobutadiene ND ND ND ND ug/L Hexachlorobutadiene ND ND ND ND ug/L Hexachloropene ND ND		-			ug/L
Dibenzo(a,h)anthracene					
Dibenzofuran ND 22 ND ug/L Diethylphthalate ND ND ND ND ug/L Dien-buylphthalate ND ND ND ND ug/L Dien-buylphthalate ND ND ND ND ug/L Dien-octylphthalate ND ND ND ND ND ug/L Dien-octylphthalate ND ND ND ND ND ug/L Ethyl methanesulfonate ND ND ND ND ND ug/L Ethyl methanesulfonate ND ND ND ND ug/L ug/L Fluoranthene ND ND ND ND ug/L ug/L <td< td=""><td>•</td><td></td><td></td><td></td><td></td></td<>	•				
Diethylphthalate ND ND ND ug/L Dimethylphthalate ND ND ND ND ug/L Di-n-octylphthalate ND ND ND ND ug/L Di-n-octylphthalate ND ND ND ND ug/L Diphenylamine ND ND ND ND ND ug/L Ethyl methanesulfonate ND ND ND ND ND ug/L Fluoranthene ND ND ND ND ND ug/L Fluoranthene ND ND ND ND ug/L ug/L Fluoranthene ND ND ND ug/L					
Dimethylphthalate					•
Di-n-octylphthalate ND ND ND ug/L Diphenylamine ND ND ND ug/L Ethyl methanesulfonate ND ND ND ug/L Fluoranthene ND ND ND ug/L Fluoranthene ND ND 27 ND ug/L Hexachlorobenzene ND ND ND ND ug/L Hexachlorobutadiene ND ND ND ND ug/L Hexachlorocyclopentadiene ND ND ND ND ug/L Hexachloroptopene ND ND ND ND ug/L Hexachloropropene ND ND ND ND ug/L Hexachloropropene ND ND ND ND ug/L Hexachloropropene ND ND ND ND ug/L Isosafrol ND ND ND ND ug/L Isosafrole ND ND ND	, ,	ND	ND	ND	•
Diphenylamine	Di-n-butylphthalate	ND	ND	ND	ug/L
Ethyl methanesulfonate ND ND ND uq/L Fluoranthene ND 14 ND ug/L Fluoranthene ND 14 ND ug/L Fluoranthene ND ND 27 ND ug/L Hexachlorobutadiene ND ND ND ND ug/L Hexachlorocyclopentadiene ND ND ND ND ug/L Hexachloropropene ND ND ND ND ug/L Hexachloropropene ND ND ND ND ug/L Indeno(1,2,3-cd)pyrene ND ND ND ND ug/L Isodrin ND ND ND ND ug/L Isodrin ND ND ND ND ug/L Isosafrole ND ND ND ND ug/L Mestranol ND ND ND ND ug/L Naphthalene ND ND ND					
Fluoranthene	· ·				
Fluorene	•				•
Hexachlorobenzene					
Hexachlorobutadiene					
Hexachlorocyclopentadiene					
Hexachloroethane					
Indeno(1,2,3-cd)pyrene	Hexachloroethane			ND	
Isodrin					
Isophorone					-
Isosafrole					
Mestranol ND ND ND uq/L Methyl methanesulfonate ND ND ND uq/L Naphthalene ND ND ND ug/L Nitrobenzene ND ND ND ug/L N-Nitrosodi-n-butylamine ND ND ND ug/L N-Nitrosodi-n-propylamine ND ND ND ND ug/L N-Nitrosopiperidine ND ND ND ND ug/L p-Dimethylaminoazobenzene ND ND ND ND ug/L Pentachlorobenzene ND ND ND ND ug/L Pentachlorophenol ND ND ND ND ug/L Phenacetin ND ND ND ug/L Phenanthrene ND ND ND ug/L Pronamide ND ND ND ug/L					
Methyl methanesulfonate ND ND uq/L Naphthalene ND 210 ND ug/L Nitrobenzene ND ND ND ND ug/L N-Nitrosodi-n-butylamine ND ND ND ND ug/L N-Nitrosodi-n-butylamine ND ND ND ND ug/L N-Nitrosodi-n-butylamine ND ND ND ND ug/L N-Nitrosodi-n-propylamine ND ND ND ND ug/L p-Dimethylaminoazobenzene ND ND ND ND ug/L Pentachlorobenzene ND ND ND ND ug/L Pentachlorophenol ND ND ND ND ug/L Phenacetin ND ND ND ug/L Phenol ND ND ND ND Phenol ND ND ND ND Popratachlorophenol ND ND ND ug/L <td></td> <td></td> <td></td> <td></td> <td></td>					
Naphthalene ND 210 ND ug/L Nitrobenzene ND ND ND ug/L N-Nitrosodi-n-butylamine ND ND ND ug/L N-Nitrosodi-n-propylamine ND ND ND ug/L N-Nitrosopiperidine ND ND ND ND ug/L P-Dimethylaminoazobonzene ND ND ND ND ug/L Pentachlorobenzene ND ND ND ND ug/L Pentachlorophenol ND ND ND ND ug/L Phenacetin ND ND ND ug/L Phenol ND ND ND ND ug/L Pronamide ND ND ND ND ug/L					
Nitrobenzene ND ND ND ug/L N-Nitrosodi-n-butylamine ND ND ND ug/L N-Nitrosodi-n-propylamine ND ND ND ND ug/L N-Nitrosopiperidine ND ND ND ND ND Ug/L P-Dimethylaminoazobonzene ND ND ND ND ug/L Pentachlorobenzene ND ND ND ND ug/L Pentachlorophenol ND ND ND ND ug/L Phenacetin ND ND ND ND ug/L Phenanthrene ND ND ND ND ug/L Pronamide ND ND ND ND ug/L					
N-Nitrosodi-n-propylamine ND ND ND ug/L N-Nitrosopiperidine ND ND ND ug/L p-Dimethylaminoazobonzene ND ND ND ug/L Pentachlorobenzene ND ND ND ug/L Pentachlorophenol ND ND ND ug/L Phenacetin ND ND ND ug/L Phenanthrene ND 49 ND ug/L Phenol ND ND ND ug/L Pronamide ND ND ND ug/L Pyrene ND 80 ND ug/L					ug/L
N-Nitrosopiperidine ND ND ND uq/L p-Dimethylaminoazobonzene ND ND ND uq/L Pentachtorobenzene ND ND ND uq/L Pentachtorontrobenzene ND ND ND uq/L Pentachtorophenol ND ND ND ug/L Phenacetin ND ND ND ug/L Phenanthrene ND 49 ND ug/L Phenol ND ND ND ND ug/L Pronamide ND ND ND ug/L Pyrene ND 80 ND ug/L					
p-Dimethylaminoazobonzene ND ND ND ug/L Pentachlorobenzene ND ND ND ug/L Pentachloronitrobenzene ND ND ND ug/L Pentachlorophenol ND ND ND ND ug/L Phenacetin ND ND ND ND ug/L Phenanthrene ND 49 ND ug/L Phenol ND ND ND ug/L Pronamide ND ND ND ug/L Pyrene ND 80 ND ug/L					
Pentachlorobenzene ND ND ND ug/L Pentachloronitrobenzene ND ND ND ug/L Pentachlorophenol ND ND ND ug/L Phenacetin ND ND ND ug/L Phenanthrene ND 49 ND ug/L Phenol ND ND ND ND ug/L Pronamide ND ND ND ug/L Pyrene ND 80 ND ug/L					
Pentachloronitrobenzene ND ND ND uq/L Pentachlorophenol ND ND ND ug/L Phenacctin ND ND ND ug/L Phenanthrene ND 49 ND ug/L Phenol ND ND ND ND ug/L Pronamide ND ND ND ug/L Pyrene ND 80 ND ug/L					
Pentachlorophenol ND ND ND ug/L Phenacetin ND ND ND ug/L Phenanthrene ND 49 ND ug/L Phenol ND ND ND ND ug/L Pronamide ND ND ND ug/L Pyrene ND 80 ND ug/L					
Phenacetin ND ND uq/L Phenanthrene ND 49 ND ug/L Phenol ND ND ND uq/L Pronamide ND ND ND uq/L Pyrene ND 80 ND ug/L					
Phenanthrene ND 49 ND ug/L Phenol ND ND ND ug/L Pronamide ND ND ND ug/L Pyrene ND 80 ND ug/L					
Pronamide ND ND ND ug/L Pyrene ND 80 ND ug/L					
Pyrene ND 80 ND ug/L					uq/L
*					
	•				
Pyridine ND ND ND ug/L Safrole ND ND ND ug/L					

MARA	THON	ELECT	RIC, LP	C 0090	15501	
1			_		er Results	
	G101	Units	G107	Units	G108	Units
Cyanide	ND	mg/L	ND	mg/L	0.006	mg/L
Aluminum	12000	ug/L	1910	ug/L	25800	ug/L
Antimony	ND	ug/L	ND	ug/L	ND	ug/L
Arsenic	10.1	ug/L	22.9	ug/L	ND	ug/L
Barium	198	ug/L	18.0	ug/L	314	ug/L
Beryllium	ND	ug/L	ND	ug/L	ND	ug/L
Boron	38.7	ug/L	171	ug/L	74.3	ug/L
Cadmium	3.52	ug/L	ND	ug/L	4.56	ug/L
Calcium	77300	ug/L	8340	ug/L	343000	ug/L
Chromium	26.4	ug/L	30.0	ug/L	88.6	ug/L
Cobalt	ND	ug/L	ND	ug/L	12.7	ug/L
Copper	35.1	ug/L	19.6	ug/L	50.7	ug/L
Hardness	332000	ug/L	31700	ug/L	1540000	ug/L
Iron	33900	ug/L	4130	ug/L	39500	ug/L
Lead	12.6	ug/L	11.9	ug/L	18.6	ug/L
Magnesium	33700	ug/L	2640	ug/L	166000	ug/L
Manganese	964	ug/L	126	ug/L	1650	ug/L
Nickel	31.5	ug/L	ND	ug/L	65.3	ug/L
Potassium	4820	ug/L	108000	ug/L	6570	ug/L
Selenium	ND	ug/L	ND	ug/L	ND	ug/L
Silver	ND	ug/L	ND	ug/L	ND	ug/L
Sodium	5920	ug/L	17300	ug/L	13500	ug/L
Strontium	120	ug/L	27.2	ug/L	289	ug/L
Thallium	ND	ug/L	ND	ug/L	ND	ug/L
Vanadium	44.7	ug/L	8.97	ug/L	67.0	ug/L
Zinc	91.8	ug/L	45.2	ug/L	119	ug/L
Aldrin	ND	ug/L	ND	ug/L	ND	ug/L
alpha-BHC	ND	ug/L	ND	ug/L	ND	ug/L
alpha-Chlordane	ND	ug/L	ND	ug/L	ND	ug/L
Aroclor 1016	ND	ug/L	ND	ug/L	ND	ug/L
Aroclor 1221 Aroclor 1232	ND	ug/L	ND	ug/L	ND	ug/L
1	ND	ug/L	ND	ug/L	ND	ug/L
Aroclor 1242 Aroclor 1248	ND ND	ug/L	ND ND	ug/L	ND ND	ug/L
Aroclor 1254	ND	ug/L	ND	ug/L	ND	ug/L
Aroclor 1254 Aroclor 1260	ND ND	ug/L	ND	ug/L	ND ND	ug/L
beta-BHC	ND ND	ug/L ug/L	ND ND	ug/L ug/L	ND ND	ug/L
delta-BHC	ND ND	ug/L ug/L	ND ND	ug/L ug/L	ND	ug/ L ug/L
Dieldrin	ND	ug/L ug/L	ND	ug/∟ ug/L	ND	ug/L ug/L
Endosulfan I	ND	ug/L ug/L	ND	ug/L ug/L	ND	ug/L ug/L
Endosulfan II	ND	ug/L	ND	ug/L	ND	ug/L
Endosulfan sulfate	ND	ug/L	ND	ug/L	ND	ug/L
Endrin	ND	ug/L	ND	ug/L	ND	ug/L
Endrin aldehyde	ND	ug/L	ND	ug/L	ND	ug/L
Endrin ketone	ND	ug/L	ND	ug/L	ND	ug/L
gamma-BHC	ND	ug/L	ND	ug/L	ND	ug/L
gamma-Chlordane	ND	ug/L	ND	ug/L	ND	ug/L
Heptachlor	ND	ug/L	ND	ug/L	ND	ug/L
Heptachlor epoxide	ND	ug/L	ND	ug/L	ND	ug/L
Methoxychlor	ND	ug/L	ND	ug/L	ND	ug/L
p,p'-DDD	ND	ug/L	ND	ug/L	ND	ug/L
p,p'-DDE	ND	ug/L	ND	ug/L	ND	ug/L
p,p'-DDT	ND	ug/L	ND	ug/L	ND	ug/L
Toxaphene	ND	ug/L	ND	ug/L	ND	ug/L
Mercury	ND	ug/L	ND	ug/L	ND	ug/L

	X20 - 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
	X 11, 12, 13, 13, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14	
	X11X	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	X1X	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	X 1128 N N N N N N N N N N N N N N N N N N N	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	X 112X	
	X1	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
	X 0 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
_	X	222222222222222222222222222222222222222
LPC 0099015500	X109A X109A ND ND ND ND ND ND ND ND ND ND ND ND ND	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
SC 0099	X108B X108B X108B ND	222222222222222222222222222222222222222
RC,	X108A X108A X108A ND ND ND ND ND ND ND ND ND ND ND ND ND	3 - 3 3 3 3 3 3 3 3 8 8 8 8 8 8 8 8 8 8
回	7. Organic X107 X107 ND ND N	ND
MARATHON	X106 X106 ND ND N	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
MAR	X	999999999999999999999999999999999999999
	X1048 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
	X104 O O O O O O O O O O O O O O O O O O O	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	X	555555555555555555555555555555555555555
	X	555555555555555555555555555555555555555
	# 101 X O N O N O N O N O N O N O N O N O N O	999999999999999999999999999999999999999
	4 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
	ud/ka Acetone crs-1.2-Dichloroethene crs-1.3-Dichloropropene Dibromochloromethane Dibromochloromethane Clarybenzene Isopropybenzene Methyl tert-butyl ether Irans-1,3-Dichloropropene Irichleroflucoethene Irichleroflucoethene Vinyl chlorote Vinyl chlorote Vinyl chlorote Xylenes, total	2-Methylinaphthalene 2-Methylphenoi A-Nitrophenol A-Cenaphthene A-Chenaphthylene A-Chenaphthylene A-Chenaphthylene B-Carbacele Benzo(a)mperylene Benzo(a)mperylene Benzo(b)fluoranthene Benzo(fylluoranthene Benzo(fylluoranthene Carbazole Carbazole Carbazole Chrysene Dibenzo(k)fluoranthene Carbazole Chrysene Dibenzo(k)fluoranthene Carbazole Chrysene Dibenzo(k)fluoranthene Carbazole Chrysene Dibenzo(k)fluoranthene Fluoranthene Fluoranthene Fluoranthene Fluoranthene Fluoranthene Fluoranthene Pluoranthene

Detected but not above one on the below listed categories.
 Above a Tiered Approach to Corrective Action Objective (TACO) Residential Soil Corrective Action Objectives (CAO).
 Above a Tiered Approach to Corrective Action Objective (TACO) Commercial Soil Corrective Action Objectives (CAO).
 No estabilished TACO level

No Detected

						MARATHON	THO	L ELE	ELECTRIC,		LPC 00	00990155001	5001							
						Tabl	Table 4.2, I	norgai	nic/Pe	sticide/	Inorganic/Pesticide/PCB Soil Results	il Resu	Its							
mg/kg	X101A	X101B	X102	X103	X104A	X104A X104B X1	05	X106	X107	X108A	X108B	X109A	X109B	X110	X111	X112A	X112B	X113	X114A	X114B
Aluminum	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Arsenic	2	2	S	Ω	7	9	-	Q	Q	Q	~	Q	Q	S	2	2	R	2	-	-
Barium	_	~	_		-	.	~	-	-	-		-	₩.	₹			-	<u>-</u>	-	_
Beryllium	-	~	-	~	_	_	-		-	<u>-</u>	₹	-	-	₹~	-	~	-	-	_	-
Boron	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Cadmium		-	~	Ψ-	-	~	_		-	_	_		τ-	~	-	-	-	τ		_
Calcium	ঝ	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Chromium		₹-	-	_		-	-	_	<u>. </u>	<u>. </u>			-	-	-	-	, -			_
Cobalt	~	~	-	_		-	~	_	~	_	-	_	τ-	-	-	τ-	-	-	-	
Copper	-	τ	_	<u>-</u>	_		-	_	τ-	τ	-	-	₹	-	-	-	~~		-	-
Iron	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Lead	~	τ-	-	τ	_		_	~	_	_	~	_	τ	-	-	τ-	_		-	τ-
Magnesium	-	~	-	_	_	Ψ-	_	τ	-	_	-	-	-	₩	τ-	₩-	_		τ-	₹
Manganese	₩-	_	~	_	7	~	<u>_</u>	τ-	_	_	-	_	, -			,	-	₩	₩.	τ
Nickel Nickel	_		Ψ-	-	τ-	_	_	-	_	_	_	~	-				-		-	τ
Potassium	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Silver	S	9	Q N	Q N	Q	9	Q	9		Q	S	9	2	S	9	2	2	9	Q	2
Strontium	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Vanadium	τ-	-	_	-	~	_	~	-	-		<u>_</u>	~	-	-	_	Ψ-	-	~-	-	Υ-
Zinc	-	-	-		-	~		-		~-	~	~	/	-	-	_		Υ-		Υ-
Aroclor 1254	N	S	S	S	S	S	Q.	S	S	S S	N	8	S	ND	9	Q	ND	*,	*	*
Aroclor 1260	QN N	Ω	Q N	Q N	S	2	Ω	Q	S	*.	*_	9	S	Q	N N	Q N	Q	2	Q	2
gamma-BHC	ND	ND	ND	ND	N	ND	ΩN	ΩN	τ	ND	N O	QN	ND	ND	S	Q	ND	S	Q	ND

1 - Detected but not above one on the below listed categories.

2 - Above a Tiered Approach to Corrective Action Objective (TACO) Residential Soil Corrective Action Objectives (CAO). 3 - Above a Tiered Approach to Corrective Action Objective (TACO) Commercial Soil Corrective Action Objectives (CAO).

4 - No established TACO level

ND - Not Detected

IEPA normally uses USEPA policy calling for less than 10 parts per million total PCBs for unrestricted areas * No objective set in TACO for individual PCB congeners

MARATHON ELECTRIC, LPC 0090155001						
Table 5.1, Or	Table 5.1, Organic Groundwater Results					
ug/L	G101	G107	G108	Units		
cis-1,2-Dichloroethene	ND	ND	1	ug/L		
Ethylbenzene	ND	1	ND	ug/L		
Toluene	ND	1	ND	ug/L		
Trichloroethene	ND	ND	1	ug/L		
Vinyl chloride	ND	ND	2, 3	ug/L		
Xylenes, total	ND	1	ND	ug/L		
2,4-Dimethylphenol	ND	1	ND	ug/L		
2-Methylnaphthalene	ND	4, 5	ND	ug/L		
2-Methylphenol	ND	1	ND	ug/L		
Acenaphthene	ND	1	ND	ug/L		
Anthracene	ND	1	ND	ug/L		
Carbazole	ND	4, 5	ND	ug/L		
Dibenzofuran	ND	4, 5	ND	ug/L		
Fluoranthene	ND	1	ND	ug/L		
Fluorene	ND	1	ND	ug/L		
Naphthalene	ND	2, 4	ND	ug/L		
Phenanthrene	ND	1	ND	ug/L		
Pyrene	ND	1	ND	ug/L		

- 1 Detected but not above one on the below listed categories.
- 2 Above a Tiered Approach to Corrective Action Objective (TACO) Class I aquifer level. 3 Above a Maximum Contaminant Level (MCL).
- 4 No established MCL
- 5 No established TACO level
- ND Not Detected

MARATHON	I ELECTRIC,	LPC 0090	15501
Table 5.2,	Inorganic Grour	ndwater Resu	Its
	G101	G107	G108
Cyanide	ND	ND	0.006
Aluminum	4, 5	4, 5	4, 5
Arsenic	1	1	ND
Barium	4, 5	4, 5	4, 5
Boron	1	1	1
Cadmium	1	1	1
Calcium	4, 5	4, 5	4, 5
Chromium	1	1	1
Cobalt	ND	ND	1
Copper	1	1	1
Iron	2, 4	2, 4	2, 4
Lead	2	2	2, 4
Magnesium	4, 5	4, 5	4, 5
Manganese	2, 4	1	2, 4
Nickel	1	ND	1
Potassium	4, 5	4,5	4, 5
Sodium	4, 5	4, 5	4, 5
Strontium	4, 5	4, 5	4, 5
Vanadium	4, 5	4, 5	4, 5
Zinc	4, 5	4, 5	4, 5

- 1 Detected but not above one on the below listed categories.
- 2 Above a Tiered Approach to Corrective Action Objective (TACO) Class I aquifer level.
- 3 Above a Maximum Contaminant Level (MCL).
- 4 No established MCL
- 5 No established TACO level

ND - Not Detected

APPENDIX A.
City Of Earlville Resolution Number 02-13-313

RESOLUTION NO. 02-13-2013

A RESOLUTION OF THE CITY OF EARLVILLE, ILLINOIS REQUESTING THE ASSISTANCE AND PARTICIPATION OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY IN IDENTIFYING ENVIRONMENTAL CONDITIONS ON PROERTY LOCATED AT 1050 W. UNION STREET, EARLVILLE, ILLINOIS

WHEREAS, it is in the public interest to promote the redevelopment of abandoned and/or underutilized lands within the City of Earlville; and

WHEREAS, the City of Earlville believes the property located at 1050 W. Union Street, Earlville, Illinois, and sometimes called the Old Marathon Electric property (hereinafter referred to as "the property") is currently in an underutilized state; and

WHEREAS, the redevelopment options for the property cannot be fully identified until the environmental conditions on the property have been established; and

WHEREAS, the Illinois Environmental Protection Agency can assist the City of Earlville in identifying environmental conditions on the above mentioned property; and

WHEREAS, it is in the public interest to insure that any environmental conditions which may pose a threat to health or the environment are properly addressed; and

WHEREAS, the identification of environmental conditions on the above mentioned property is critical to the future development of the property as a "Brownfield" area.

NOW THEREFORE, BE IT RESOLVED by the City Council of the City of Earlville, Illinois that the City does hereby request the assistance and participation of the Illinois Environmental Protection Agency and resolves to assist them in any manner that will provide for the timely and comprehensive environmental investigation of the property.

ADOPTED this 13th day of February, 2013.

AYES: STOCKLEY, JENKINS, OSBORNE, HARP

NAYS: -

ABSENT: AMBLER, BURD

APPROVED this 13th day of February, 2013.

Michael & Hall Mayor

ATTEST:

City Clerk

APPENDIX B. Illinois Department of Commerce and Community Affairs (DCCA) marketing report

DATE AND TIME OF REPORT: 07/01/88 16:19:36

ILLINOIS DEPARTMENT OF COMMERCE AND COMMUNITY AFFAIRS BUREAU OF MARKETING / SITES AND BUILDINGS AVAILABLE INDUSTRIAL BUILDING

IDENTIFIER: 2511B0001

INDATE: N/A UPDATE: N/A

LOCATION

CITY: EARLVILLE

ADDRESS: OLD US HWY. 34

BUILDING IN ENTERPRISE ZONE? NO

BUILDING IN INDUSTRIAL PARK? NO

COUNTY: LASALLE

ZIP: 60518

PHOTOGRAPH IN FILE? YES

PARK NAME: N/A

BUILDING CHARACTERISTICS

SITE: 42.00 ACRES MORE LAND AVAILABLE? YES; 31.00 ACRES

BUILDING SIZE, SQ FT = TOTAL: 116557 OFFICE: 6000

MANUF: 100400 WAREHSE:

OF BUILDINGS:

CEILING HEIGHT: 16.00 FT

OF BAYS:

OF TRUCK DOCKS: 5; 9 X 7 FT

1

ZONING: NOT ZONED

YEAR CONSTRUCTED: 1947

PREVIOUS USE: MANUFACTURING

SPRINKLERED? YES; 100 % WET, N/A % DRY FLOOR DRAINS? NO

A'IR CONDITIONING: PLANT? NO; OFFICE? YES

CRANE? YES NUMBER: 7

FLOOR LOAD CAPACITY: N/A PSI

COMPRESSED AIR AVAILABLE? NO

TYPE OF HEATING: UNIT HEAT

OF STORIES:

1 COLUMN SPACING: 25 X 40 FT

OF OVRHD DOORS: 1; 14 X 14 FT

ZONED BY: N/A

ADDITIONAL CONSTRUCTION: 1972

CONDITION: GOOD

MAXIMUM LOAD: 15.00 TONS

FLOOR THICKNESS: 6.0 INCHES ELECTRIC BUS DUCT? YES

USDA APPROVED? NO

TRANSPORTATION

RAILSPUR? YES

RAILROAD 1: BURLINGTON NORTHERN

RAILROAD 2: CHICAGO NORTHWESTERN TRNS

RIVER/WATERWAY CONTIGUOUS TO PROPERTY? NO NAME: N/A BARGE LOADING FACILITY? NO

MILES TO NEAREST INTERSTATE:

MILES TO NEAREST COMMERCIAL AIRPORT: 80.00 NAME: OHARE

OTHER BARGE WITHIN 10 MILES? NO 25.00 INTERSTATE: 80

RAIL CAR CAPACITY: N/A

UTILITIES

ELECTRIC: COMMONWEALTH EDISON CO

GAS: NORTHERN ILL GAS CO

WATER: WELL

SANITATION: SEPTIC TANK

VOLTAGE: 440.00 AMPS: 6200.00

SIZE OF MAIN: 4 IN. PSI: N/A

SIZE OF MAIN: N/A IN. SIZE OF MAIN: N/A IN.

CONTACTS

OWNER: N/A

ADDRESS: MARATON ELECTRIC CORP.

STATE: WI

BROKER:

BINSWANGER INDUSTRIAL

CONTACT: LARRY JOHNSON

CONTACT: JOHN SLAYTON, E.V.P.

CITY: WAUSAU

PHONE: (715)675-3311

PHONE: (312)693-7770

ASKING PRICE: \$ 1100000.00

TAX RATE: N/A LEASE: \$ N/A

REAL ESTATE TAXES: \$ 42488.60

COMMENTS: MANUFACTURE OF ELECTRIC MOTORS - MARATHON ELECTRIC

ALL INFORMATION DEEMED RELIABLE BUT NO WARRANTY FOR ITS ACCURACY